

Introduction in fibre optics, for harnessing systems Aircrafts.

1st Day: **Theoretical Bases**

- Optical Fundamentals
- Fundamentals of the optical fibre, description of fibre types
- Production process of the optical fibre
- Structure of fibre optic cables
- Fibre optic interconnection systems; splices, connectors,
- Optical parameters of an interconnection: Insertion Loss, Return Loss
 - But joint connectors
 - Expanded beam connectors
- Transmission systems; single and bidirectional systems
- Precautions for safe cabling with optical fibre
- Maintenance of fibre optic interconnections:
 - Inspection
 - Cleaning
- Maintenance of fibre optic interconnections.
 - Inspection
 - Cleaning
- Measurement tools for fibre optic assemblies, components and harnesses:
 - Source – Optical Power Meter technique
 - Optical Time Domain Reflectometry.
- Troubleshooting and repair using the Repair Set and Kit Diamond



2nd , 3rd , 4th Day: **Practise**



- Search of faults in fibre optic harnessing
- Maintenance and cleaning of fibre optic interconnections
- Measurement and characterisation of fibre optic assemblies and components, mainly connectors
- Fault location and troubleshooting in fibre Optic harnesses with OTDR technique
- Harnessing repair using Repair Set

Handling of an optical fibre/cable

- Cable stripping
- Preparation of the strain members
- Stripping of a fibre

Repair of an optical fibre

- Stripping and repair using repair set



- Measuring of the repaired optical line using Light Source and Power Meter

Repair of a fibre cable:

- Cable, resp. fibre preparation
Stripping and repair using Repair set
- Measuring of the repaired optical line with OTDR technique, resp. Light source and Power Meter.

Repair under difficult conditions:

- The process is done in an uncomfortable position, which requires the working bench; eventually in a dark area, where the head lamp is necessary
- Cable, resp. fibre preparation
- Stripping and repair using repair set
- Measuring (quality control) of the repaired optical line

Training Site: Diamond SA Losone, Switzerland

Max. 4 participants

Price includes training, consumables, coffees and business lunches.

Travel and hotel are on behalf of the participants

Travelling expenses for other training sites are separately calculated.



DIAMOND SA
Via dei Patrizi 5
6616 Losone
Switzerland
Phone: +41 91 785 45 45
info@diamond-fo.com

www.diamond-fo.com